

Mycobacteriology

Acid Fast Bacilli (see *Mycobacterium spp.*)

AFB (see *Mycobacterium spp.*)

***Mycobacterium spp.* Culture Isolation/ Identification**

Specimen Requirements: Send specimens in sterile container. Add sterile saline or broth to tissues or other non-liquid specimens. Send isolates on LJ medium or in liquid media vials.

Turn Around Time: Smear reports are faxed to submitter by 5 p.m. the same day specimen is processed. Positive results are telephoned to the submitter; cultures are monitored for 6 weeks prior to negative report. Cultures positive for *Mycobacterium tuberculosis* complex will be reflexed for *Mycobacterium tuberculosis* complex Antimicrobial Susceptibility Testing.

NOTE: After a patient has tested positive for *M. tuberculosis*, no more than three specimens per week from the same body site will be processed to determine response to therapy and infectious status, without prior consultation. To determine response to therapy, specimens should be obtained no sooner than 7 days post initiation of therapy.

CPT Codes: 87206 (smear)

Price: \$14.50

87015 (concentration)

Price: \$15.25

87116 (culture)

Price: \$32.75

87176 (tissue digestion)

Price: \$9.00

Transport Temperature: Ambient

***Mycobacterium spp.* Identification by Nucleic Acid Probe**

Specimen Requirements: Isolates sent on LJ slants or in liquid media vials, or as reflex testing on positive primary specimens submitted for culture.

Turn Around Time: 1 to 3 working days for submitted isolates, others dependent on growth rate.

NOTE: On initial isolation of an AFB from a new patient, both *M. tuberculosis* complex and *M. avium* complex probes will be run on the isolate. After *M. tuberculosis* complex has been confirmed in the patient, subsequent cultures received during the next six weeks will only be probed for *M. tuberculosis* complex.

CPT Code: 87555 (*M. tuberculosis*)

87560 (*M. avium* probe)

87550 (*M. gordonae* or *M. kansasii*)

Price: \$29.50 each

Transport Temperature: Ambient

***Mycobacterium tuberculosis* complex Antimicrobial Susceptibility Testing**

Specimen Requirements: Isolates sent on LJ slants or in liquid media vials, or primary specimens submitted for culture. Reflex testing is performed on *Mycobacterium tuberculosis* complex isolates identified in this laboratory.

Agents tested: Isoniazid (two concentrations), Rifampin, Ethambutol and PZA.

Turn Around Time: 7 to 14 working days from date susceptibility testing is begun.

NOTE: Susceptibility testing for *M. tuberculosis* will be performed only on the first isolate from the patient, and will be repeated on subsequent isolates from specimens received 2 months after initiation of therapy. Other susceptibility testing, including molecular drug susceptibility testing or second line drug testing is available upon consultation.

CPT Code: 87190 X 5

Price: \$14.75 each

Total Price: \$73.75

Transport Temperature: Ambient

Tuberculosis (See *Mycobacterium spp.*)

***Mycobacterium* spp. (AFB or TB) Testing Collection and Transport**

All specimens are potentially infectious; handle carefully.

Sputum or Nebulized Sputum	Collect three early morning specimens on successive days (within 48 hours) and submit daily in separate containers. Good specimens are material brought up by the lungs after a productive cough or nebulization. Send a minimum of 5 mL in a sterile container.
Urine	Collect multiple first morning "clean catch" specimens on three successive days. Send a minimum of 40 mL in a sterile container.
Gastric	Collect three early morning fasting specimens on successive days. Send a minimum of 10 mL in a sterile container. Add 10 mg of sodium bicarbonate to neutralize the acidity. Send promptly after collection; these specimens should be processed as soon as possible.
Bronchial Washings	Submit first sputum specimen following bronchoscopy as well as the bronchial washings. Send a minimum of 5 mL in a sterile container.
Tissues	Collect aseptically and place in sterile container. Add about 1 mL sterile broth or sterile saline to tissues and swabs to prevent dehydration.
CSF or Other Sterile Body Fluids	Submit in sterile collection tube; at least 2 mL is needed for an adequate test.
Blood or Bone Marrow	Collect in heparinized tube or add sterile heparin (0.2 mg/mL) to prevent clotting. Send a minimum of 1 mL in a sterile container.
Stool	Submit 1 gram of raw stool in a sterile container. Send on ice.
Swab (Not Optimal)	Specimens submitted on swabs are discouraged. Please make every effort to submit tissue or aspirated fluid, as these are preferred sources.

Use only sterile materials in the collection of the specimen. Collect specimen directly into the sterile bottle provided or into a sterile container, refrigerate specimen until transported, and send as soon as possible. Make certain that the container is labeled with patient identifier and collection date.

Screw lid onto specimen container tightly so specimen does not leak; place each specimen container in an individual biohazard zip lock bag containing absorbent material and seal bag tightly.

Fill out the standard laboratory request form. Place form in outside sleeve of biohazard zip lock bag and put into TB mailing container. Respiratory specimens should be packaged and transported cold by mail or courier. All other specimens may be transported at ambient temperature.